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Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 6092-3-3 (2004): Methods of Sampling and Test for Fertilizers, Part 3: Determination of Phosphorus, Section 3: Extraction of Water-Soluble Phosphates [FAD 7: Soil Quality and Gertilizers]

“ज्ञान से एक नये भारत का निर्माण”

Satyanaaran Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartṛhari—Nītiśatakam

“Knowledge is such a treasure which cannot be stolen”



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भारतीय मानक
उर्वरकों के नमूने लेना और परीक्षण पद्धतियाँ
भाग 3 फास्फोरस ज्ञात करना
अनुभाग 3 विलेय फोसफेट्स का निष्कर्षण

Indian Standard
**METHODS OF SAMPLING AND TEST FOR
FERTILIZERS**
PART 3 DETERMINATION OF PHOSPHORUS
Section 3 Extraction of Water-Soluble Phosphates

ICS 65.080

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BUREAU OF INDIAN STANDARDS
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NEW DELHI 110002

NATIONAL FOREWORD

This Indian Standard (Part 3/Sec 3) which is identical with ISO 5316 : 1977 'Fertilizers — Extraction of water-soluble phosphates' issued by the International Organization for Standardization (ISO) was adopted by the Bureau of Indian Standards on the recommendations of the Fertilizers Sectional Committee and approval of the Petroleum, Coal and Related Products Division Council.

The text of ISO Standard has been proposed to be approved as suitable for publication as an Indian Standard without deviations. Certain conventions are, however, not identical to those used in Indian Standards. Attention is particularly drawn to the following:

- a) Wherever the words 'International Standard' appear referring to this standard, they should be read as 'Indian Standard'.
- b) Comma (,) has been used as a decimal marker while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

Indian Standard
**METHODS OF SAMPLING AND TEST FOR
FERTILIZERS**

PART 3 DETERMINATION OF PHOSPHORUS

Section 3 Extraction of Water-Soluble Phosphates

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies a method for the extraction of water-soluble phosphorus(V) oxide from fertilizers.

It is applicable to all fertilizers for which the determination of water-soluble phosphorus(V) oxide content is required.

2 REFERENCE

ISO . . . , *Fertilizers – Sampling*.¹⁾

3 PRINCIPLE

Dissolution in water of the phosphorus(V) oxide in a test portion by shaking, using a rotary shaker under specified conditions.

4 REAGENT

Distilled water, or deionized water of equivalent purity.

5 APPARATUS

Ordinary laboratory apparatus and in particular

5.1 Wide-necked one-mark volumetric flask (for example Stohmann flask), of capacity 500 ml.

5.2 Rotary shaker, capable of being controlled at a rotational frequency of 35 to 40 min⁻¹.

6 SAMPLING

See ISO . . .

7 PROCEDURE

7.1 Test portion

Weigh, to the nearest 0,001 g, about 5 g of the laboratory sample and place in the volumetric flask (5.1).

7.2 Extraction

Add 400 ml of the water (clause 4) at between 20 and 25 °C.

Shake gently by hand to disperse particulate matter and to prevent the test portion sticking to the sides of the flask. Place the flask on the shaker (5.2), controlled at 35 to 40 min⁻¹, and shake for 30 min.

Dilute to the mark with the water, mix carefully by hand shaking, and filter through a dry folded filter paper of medium speed, free from phosphate, collecting the filtrate in a dry receiver clean and free from phosphate. Reject the first 50 ml of filtrate.

1) In preparation.

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